

**In re Investigation of accident which  
occurred on the Fort Worth & Denver  
City Railway near North Fort  
Worth, Texas, on January 14,  
1917.**

**February 17, 1917.**

On January 14, 1917, there was a rear-end collision between a freight train and a yard transfer, on the Fort Worth & Denver City Railway near North Fort Worth, Texas, which resulted in the death of 1 employee, and the injury of 1 employee and 1 passenger. After the investigation of this accident the Chief of the Division of Safety reports as follows:

The first division of this railway, on which this accident occurred, is a single track line extending from Fort Worth to Wichita Falls, Texas, a distance of 114.4 miles. Train movements are governed by time-table and train orders, the latter being transmitted by telegraph. North-bound trains are superior by direction.

Beginning at the north end of the Fort Worth freight yards, an auxiliary or "tail" track parallels the main track a distance of 7,310 feet, or to mile post 2, about 4,800 feet south of North Fort Worth station. The movement of trains between Fort Worth and North Fort Worth is governed by the operating rules, supplemented by special bulletin No. 677, which, as issued January 1, 1917, by General Agent Byron, reads as follows:

"Trainmaster's bulletin dated Jan. 7th, 1910, is quoted below:

"\*The tail track at MP 2 is now ready for service. This track to be used by switch engines going to and from MP 2. Road engines using this track must protect against yard engines. Yard engines may occupy this track between MP 2 and Fort Worth freight yards without orders."

"Yard engines must confine their movements between Fort Worth and MP 2 to tail track as much as possible. If necessary to use main track, foreman must obtain orders, or protect in accordance with rule 99. Yard limit boards formerly located be-

tween Ft. Worth and North Ft. Worth have been removed and the yard limits of these two stations are now continuous between Fort Worth and the present north limits of North Fort Worth Yard. Movements within these limits may be made without train orders in accordance with rules 93 and 98 (a), protecting as per rule 99 when required. Switch engines must not go north of North Fort Worth without train orders.

**\*--Protection of Switch Engines--**

When the tail track is blocked or cannot be used the train order signal at North Fort Worth will be used by operator or night clerk when necessary to protect switch engines against opposing trains. When same indicates 'stop' the signal must not be passed by any engine or train until given a clearance card, form 160. Yardmasters or engine foremen will give yard enginemen notice in writing when this protection has been arranged."

Bulletin No. 753, concerning Bulletin No. 677, reads in part as follows:

"While under the bulletin referred to, road crews have right over switch engines on the main track from Fort Worth to the end of tail track, yard engines have equal rights with all except first class trains between the end of the tail track and North Yard limit boards near Kelp's Elevator, as well as within the yard limits of Hodge and North Yard."

Rule No. 98 (a) provides as follows:

"Stations having yard limits will be designated in special rule in time-table. All trains and engines will have the right to work within such yard limits, regardless of all except first class trains, but will give way as soon as possible upon their approach.

"All except first class trains will approach yard limits with trains under full control and be prepared to stop within the limit of vision. The responsibility for accident at such points will rest with the approaching trains. At such stations as have no yard limit signs, the limits will be considered to be between extreme switches."

About 1,600 feet north of North Fort Worth the St. Louis Southwestern Railway crosses the Fort Worth & Denver City Railway at grade; this crossing, as well as other crossings in the vicinity of Fort Worth and North Fort Worth, is protected by a standard interlocking plant. When proper signals are clear, trains may proceed at a speed not to exceed 15 miles per hour.

Northbound freight train No. 19 consisted of 44 cars, with a tonnage of 1,484 tons, and a caboose, hauled by locomotive 406, and was in charge of Conductor Woods and Engineman Cohenour. It left Fort Worth freight yards about 8.00 p. m., 1 hour and 15 minutes late, en route to Texline, Texas, 453.3 miles distant, stopped at North Fort Worth at 8.10 p. m., where an immigrant outfit car was picked up, left there at 8.35 p. m., and became stalled, because of the snow and an ascending grade of about .65%, when the caboose was just north of the St. Louis Southwestern Railway crossing. Arrangements were then made to have train No. 19 back up for the purpose of clearing the interlocking plant, and for the purpose of awaiting a switch engine from Fort Worth to push it over the hill. The train backed up at a speed of 4 or 5 miles an hour, and at a point 2,160 feet south of North Fort Worth station, which is also known as "B-3 Station," collided with the front end of a draft of cars being pushed by a yard transfer engine, about 9.10 p. m.

Locomotive 60, backing up and pushing three cars, was in charge of Engine Foreman Short and Enginemen Gallagher, and left the north end of Fort Worth freight yards, which are also known as the 17th Street yards, en route to North Fort Worth, at 8.57 p. m., after having been given the following order, at the south end of the yards, by the night yardmaster:

"Order board B-3 will hold all southbound trains until you arrive there, except 17th Street day switch engine. Nothing ordered out of yard."

While traveling at a speed of 10 or 12 miles an hour it collided with the rear end of train No. 19.

The caboose of train No. 19 was crushed between the car next to it, which was of steel construction, and the leading car of the transfer draft; the wreckage of the caboose went down the embankment on the east side of the track, the conductor of train No. 19 being killed in the accident. The car next to the caboose was derailed and turned over to the east, coming to rest at an angle of about 45 degrees with the track, its rear end being at the foot of the embankment; the rear end of the second car from the caboose was also derailed. In the transfer draft, the leading car, the one that struck the caboose of train No. 19, was not derailed, but the second car was turned over to the east and came to rest parallel with and clear of the track; after the collision

train No. 19 moved about two car lengths.

Approaching the point of accident from the south the track is tangent for a distance of 2,000 feet, while approaching from the north it is tangent for 2,700 feet; the grade on all of which is practically level. The track in this vicinity is laid on a fill, which at the point of collision is about 18 feet in depth. In the vicinity of the accident the Fort Worth & Denver City Railway is paralleled, on the east by the Chicago, Rock Island & Gulf Railway, and on the west by the St. Louis Southwestern Railway and the Gulf, Colorado & Santa Fe Railway. At the time of the accident there were about six inches of snow on the ground and the snow was still falling.

Operator Dallie, on duty at North Fort Worth station, stated that soon after train No. 19 had passed there, going north, the yardmaster at Fort Worth called him by telephone and told him to set his train order board in the stop position, and hold all southbound trains until switching locomotive 69, with three cars, reached that place. He stated that he immediately set the train order board in the stop position, called the interlocking tower, located 1,140 feet north of the station, and instructed the towerman to hold all southbound trains until he called him again. In about four or five minutes the towerman called him and told him train No. 19 had become stalled in the interlocking limits and wanted to back up. He stated that he told the towerman to wait a minute, called up the yardmaster at Fort Worth and asked if the switch engine had left there, and was told that it had not done so. He stated that he then told the yardmaster that train No. 19 had stalled and wanted to back up, and asked him to be sure to tell the crew of the switch engine that when they came northward with their transfer, train No. 19 would be found just south of North Fort Worth station, to which the yardmaster replied "All right." Operator Dallie stated that he then called up the towerman and told him to let train No. 19 back up. He stated that while he was talking with the towerman, the rear brakeman of train No. 19 came to the door and said that his train wanted to get some help; he then told the rear brakeman that a switch engine was coming north from Fort Worth, and that he had asked the yardmaster to instruct the crew of that engine to look out for train No. 19. He stated that he then called up the yardmaster's office again, and told the person who answered, whom he thought to be the yard clerk, to be sure to tell the crew of the switching engine to look out for train No. 19. He then changed the train order board to the clear position and train No. 19 backed up past the station, the locomotive being just south of the station when the collision occurred. Operator Dallie stated that he saw train No. 19 backing up when it was about 500 feet from his station, and

saw two red markers on the rear of the caboose. He further stated that he entered the service of this company on January 1, 1917, and was therefore not fully acquainted with the general practice in handling trains between Fort Worth and North Fort Worth. He stated that on several occasions the yardmaster at Fort Worth has called him up and instructed him to hold southbound trains until a designated engine reaches North Fort Worth, but that he has never instructed the yardmaster to hold a northbound engine until a southbound train reaches Fort Worth. Operator Dallis stated that he thought that if the yardmaster had told the crew of locomotive 69 to look out for train No. 19, as he had requested him to do, and as the yardmaster agreed to do, the accident would not have occurred.

Night Yardmaster Mason, at Fort Worth freight yards, stated that he instructed the foreman of locomotive 69 to use the main track, leaving the yards, because the section foreman had advised him not to use the tail track on account of the switches being filled with snow. He stated that after locomotive 69, with three cars, had left 17th Street, the southern end of the yards, to go to 9th Street, at the northern end, there to await a southbound switching locomotive which was approaching on the main track, before proceeding to North Fort Worth, the operator at the latter station called him up at 17th Street, told him that train No. 19 had been stalled on the grade and was going to back south of the station at North Fort Worth, and asked him to notify the crew of locomotive 69 to look out for it, to which he replied "All right." He stated that although the locomotive had then already left 17th Street, it was customary to allow more than one engine on the main track at a time, between Fort Worth freight yards and North Fort Worth, under yard limit protection and because a great part was straight track; and that he therefore did not think it necessary to notify the crew of locomotive 69; neither did he think that he was violating his instructions by not doing so. Yardmaster Mason stated that on the night of the accident it was snowing, but that he, at 17th Street, could see white signal lights at 9th Street.

Engineman Cohenour, of train No. 19, stated that his train was stalled on the grade north of the St. Louis Southwestern Railway crossing north of North Fort Worth, because of the snow and the tonnage of the train; that it had been standing there about 20 minutes when a back-up signal was given, on his side of the train, by some one on the ground near the caboose. He whistled a back-up signal and received another signal before starting the train backward. Engineman Cohenour stated that after the train started to back up the speed increased to about seven miles an hour, but that

before reaching the point of collision the steam had been shut off and the speed was not more than three or four miles an hour at the time of accident, at which time his locomotive was a short distance south of the station at North Fort Worth. He stated that he considered it safe to back his train south of the station as he thought the crew was exercising all possible precautions to protect the train.

Hear Brakeman Edens, of train No. 19, stated that he rode in the caboose to North Fort Worth, where about 30 minutes were consumed in picking up an emigrant outfit car, the train proceeding north from there and stalling in interlocking limits. He said the conductor came to the caboose and, in accordance with instructions which the latter gave him, he went back to the telegraph office at North Fort Worth and asked whether there was a switch engine coming from Fort Worth, the operator replying that one would leave the Fort Worth freight yards as soon as a southbound switch engine, then on its way from North Fort Worth, reached the yards. Brakeman Edens stated that he then told the operator that it would be necessary to back up his train in order to clear the interlocker. He said that the operator telephoned some one, presumably the yardmaster, and then told him that his train might back up, and that the northbound switch engine would expect to find his train south of the station. Brakeman Edens stated that he then went back to the tower and told the towerman what movement was to be made, the latter giving the necessary signals to back up. He told his conductor that it was all right to back up, the conductor replying that he would ride on the rear end and make arrangements for the switch engine to help his train up the grade, and instructing him to board the locomotive and notify the engineman of that intention. Brakeman Edens stated that he gave the back-up signal to the engineman and rode on the caboose to a point just south of North Fort Worth station; he dropped off there and when the car next to the engine passed, he boarded it, mounting to the top of the car, and repeated signals given from the rear end of the train. He stated that he had ridden there for about ten car lengths when the train came to a stop as if the air had been applied from the rear end, the speed having been four or five miles an hour. He then told the engineman the instructions of the conductor and went to the rear end to learn the source of trouble. Brakeman Edens further stated that it was snowing, but that he could plainly see a signal a distance equal to at least the length of his train. He also stated that when he dropped off the caboose near North Fort Worth station, the conductor was either on top of the caboose or sitting in the cupola with his body out of the window. He stated that there were two markers burning on the rear of his caboose; that he saw them some distance before reaching it, when re-

turning from the telegraph office at North Fort Worth, where he had gone to learn whether there was a switch engine coming north from Fort Worth freight yards; and also when his train backed past him as he got off near North Fort Worth station. He stated that, under the rules, he thought it safe for his train to make this back-up movement without flag protection, as it was moving within yard limits.

Head Brakeman Scott, of train No. 19, stated that the conductor had been riding on the engine until the train reached the grade on which it was stalled, where he dropped off, presumably to watch the brakes and catch the caboose. He stated that after the train had been standing about 20 minutes, a back-up signal was given from the rear end; that he was on top of the tender when the train began to back up; and that when the locomotive was about at the station at North Fort Worth he saw some one on top of the caboose giving back-up signals; the light disappeared when the train was seven or eight car lengths from the point of collision and he supposed the person with the lantern had gotten down inside the caboose.

W. S. Miller, in charge of the emigrant outfit car picked up at North Fort Worth by train No. 19, stated that he was riding in the caboose when the train was backing up; that the markers on the rear of the caboose were burning; that he did not see the approaching yard transfer; and that the conductor came down out of the cupola but a short while before the collision occurred.

Engineman Gallagher, of locomotive 60, stated that after the three cars had been picked up at the southern end of the Fort Worth freight yards, his train was stopped at the yardmaster's office and the air cut in, and the engine foreman boarded the locomotive and gave him the order which provided that the order board at North Fort Worth would hold all southbound trains, except the 17th Street day switch engine, until the arrival of his train at that point. He stated that the foreman told him that his train would meet engine 62, the 17th Street day switch engine, at 9th Street, then back northward on the main track, on account of the snow not having been removed from the switches of the tail track. He further stated that engine 62 was met just before reaching 9th Street, and his locomotive and cars started to back up on the main track at 6.57 p. m., the accident occurring at 9.10 p. m.; the speed at the time was 10 or 12 miles an hour. Engineman Gallagher stated that it was snowing, but that he could see signals 10 to 25 car lengths distant. He stated that he was leaning out of the cab window all the way after leaving 9th Street; that members of the crew had climbed to the top of the cars upon leaving 9th Street, but that he did not receive any warning prior to

the collision. Enginemen Gallagher stated that if the yardmaster at Fort Worth had notified him that train No. 19 was to back up south of North Fort Worth, he would have proceeded to mile post 2, as usual, and there have begun to look for train No. 19.

Engine Foreman Short, of locomotive 69, stated that approaching the point of accident he was riding on top of the leading car; that he did not see the markers on the caboose of train No. 19, and did not see the rear end of that train until about four car lengths distant, when he saw a light inside the caboose, the door having been opened; he thought he could have seen a light 20 or 25 car lengths distant. He stated further that the reason why he had not seen the markers on the rear of the caboose of train No. 19 was partly because of the truss bridge which is located about 1,000 feet north of the point of accident; and also because of a row of electric street lights at North Fort Worth and the headlight of a southbound locomotive on the Chicago, Rock Island & Gulf Railway, which was standing at North Fort Worth; all of which, together with the snow and sleet, obscured his vision. He stated that he was keeping as diligent a lookout as if his train had not had an order that southbound trains would be held at North Fort Worth.

Switchman Taylor, who was riding on the car next to locomotive 69, stated that it was snowing, but that he thought ordinary lamp signals could be seen a distance of at least 10 or 12 car lengths, and that he saw the lanterns of two members of the crew who were riding on the leading car. He stated that he did not see any light or anything to indicate that the main line was occupied, and the first he knew of it was when the collision occurred.

The direct cause of this accident was the failure of Night Yardmaster Eason, at Fort Worth freight yards, to have train No. 19 held at North Fort Worth, in accordance with the provision, contained in the order which he had given the crew of locomotive 69, that the train order board at North Fort Worth would hold all southbound trains, except the 17th Street day switch engine, until locomotive 69 arrived there. The operator at North Fort Worth stated that when he called up the yardmaster's office, he was told that locomotive 69 had not gone, whereas the yardmaster stated that when the operator called up, locomotive 69 had gone to 3th Street. In either event, he should not have given the operator permission to allow train No. 19 to back up south of North Fort Worth.

A contributing cause was the failure of Conductor Woods, of train No. 19, who knew that locomotive 69 was coming north from Fort Worth, to have his train protected when backing up on the main track, particularly in view of the weather conditions existing at the time.

Night Yardmaster Eason entered the service of this company August 19, 1910, as switchman and engine foreman, was promoted to night yardmaster October 21, 1911, and had a clear record. Conductor Woods entered the service as brakeman October 16, 1908, and was promoted to conductor November 18, 1912.

At the time of the accident all of the employees involved therein had been on duty less than three hours.